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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/732,850  
Filing Date: December 10, 2003  
Appellant(s): GREEN ET AL.

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William Ziehler  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 9/17/09 appealing from the Office action mailed 3/20/09.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

The decision affirming substantially the same rejections as are currently of record for substantially the same claims pending which was made on 7/18/08 in this application. This decision is part of the appellant's brief.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

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<b>2002/0155278</b>	<b>BOISSEAU et al.</b>	<b>10-2002</b>
<b>2002/0119253</b>	<b>OHRBOM et al.</b>	<b>08-2002</b>
<b>5,872,195</b>	<b>GREEN et al.</b>	<b>02-1999</b>
<b>5,756,213</b>	<b>OHRBOM et al.</b>	<b>05-1998</b>

**Fink, Johannes Karl, "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers", 2005, page 82.**

**\* A legible copy of "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" is submitted herewith in response to applicant's response of 6/22/09 submitted after the final rejection of 3/20/09 though it is noted that the applicant responded to the office action of 9/29/08, which cited "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" and did not ask for a new copy of "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" though the applicant's representative, who is the same representative who signed the Appellant's brief of 9/17/09, clearly references "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" in the second paragraph of his remarks and at page 17 of his remarks in his response of 12/22/08. It is not clear why a legible copy of "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" was not asked for in this response or why a call to the examiner was not made to get a legible copy or why the remedy of MPEP 710.06 was**

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**not requested. A PTO-892 is attached hereto which cites "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers".**

**Furthermore, the appellant had better remedies than putting a request at the end of a response after final rejection. The appellant could have called the examiner and asked for a legible copy, as two other attorneys have done in similar situations. I would have gladly faxed them a clear copy, as I did in the other situations. There are various sections of the MPEP relating to timely requesting such corrections. It would seem that not asking for a copy of the reference during the appellant's first response to the rejection citing "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" is not such a timely request. It would seem that burying the request deep in an after final response is not the best attempt possible to remedy the issue either, particularly given other attorney's clear ability to timely remedy the same issue.**

**Per MPEP 1207.03 "III. SITUATIONS THAT ARE NOT CONSIDERED AS NEW GROUNDS OF REJECTION<**

**There is no new ground of rejection when the basic thrust of the rejection remains the same such that an appellant has been given a fair opportunity to react to the rejection.**

**See In re Kronig, 539 F.2d 1300, 1302-03, 190 USPQ 425, 426-27 (CCPA 1976)."**

**Because the term "macromonomer" has been of record as having the definition made clear by "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" for many office actions, the appellant had many opportunities to remedy the illegible "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" prior to appeal, including during their response to the first office**

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**action that cited "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" it cannot be said that the appellant has not "been given a fair opportunity to react to the rejection." per In re Kronig, 539 F.2d 1300, 1302-03, 190 USPQ 425, 426-27 (CCPA 1976). The legible copy of "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" supplied now should therefore not be deemed to be a new grounds of rejection.**

#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

A. Claims 1-3 and 7-16 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. Application Publication No. 2002/0155278 Boisseau et al. with "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers", page 82 being cited as evidence.

Boisseau discloses coating compositions and coating methods falling within the scope of the instant claims at the abstract; sections [0019], [0022], [0026] which falls within the scope of the instant claims 12 and 14, [0038]-[0043] which falls within the scope of the instant claims 9-10, [0048] of which the oligomeric film formers fall within the scope of the instant claims as they are not polymeric since they are oligomeric and they can be further polymerized and are thus monomers, [0050] which falls within the scope of the instant claim 2, [0098], [0099], [0105] which falls within the scope of the instant claim 15; and the remainder of the document.

The appellant argues that the patentee requires the film former to be oligomeric or polymeric, not monomeric. The instant claims and the enabling specification do not exclude

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oligomers, which are not polymers as is clear from the appellant's arguments relating to the prior 112 rejection, by recitation of "non-polymeric". The oligomers of the reference react further to give higher molecular weight polymer when cured and are therefore necessarily "macromonomers" as the term is well understood in the art and are thus "monomeric". The appellant continues to argue this issue adding that the prior art does not use the term "macromonomer" as this is the examiner's interpretation of "it appears nowhere in Boisseau..." No matter what Boisseau calls the item in question, it remains a macromonomer by its function/action in the disclosed compositions. A rose is a rose by any other name. This is clearly within the scope of "monomers". Claims are to be interpreted in their broadest reasonable scope as is axiomatic. That a macromonomer is a monomer is maintained for reasons of record and is not "an unreasonable contortion of "monomer" as used in the present application, Boisseau, and the art" because none excludes macromonomers from them and "macromonomers" are "monomers" as can easily be seen by the common occurrence of "monomer" in both terms. The appellant's arguments in this regard are not persuasive for these reasons and the other reasons of record for this issue.

Page 10, lines 4-5 of the appellant's specification states "Higher oligomer products are also possible, but not preferred." clearly indicating that the instantly claimed inventions encompass the "oligomers" of the prior art cited above. This appears to rebut the appellant's argument that their "coating composition is non-polymeric, unlike the polymeric and oligomeric coatings described in Appellant's background, page 2, paragraphs [0003] and [0004] and exemplified in the Boisseau publication."

In response to "112" rejections made in prior prosecution of this application, the appellant argued "Examples of monomeric materials are presented in the specification in paragraphs [0013] to [0027] and the U.S. patent references cited therein." It is again noted that paragraph [0020], page 10, lines 4-5 of the instant specification includes "oligomers" as the instantly claimed "monomers" which is contrary to the appellant's arguments in this regard. Thus, the examiner's position is that the "oligomers" of Boisseau et al. fall within the scope of the instant claim language, including "non-polymeric" and "monomeric material" based on the appellant's own definition of their invention at page 10, lines 4-5 of the instant specification. It is not seen that the appellant's cited definition of "oligomer" overcomes the instant specification recitation that "oligomers" are included as part of the instantly claimed invention. The appellant's cited definition of "monomer" also does not define over their specification's inclusion of oligomers as falling within the scope of the monomers being described at page 10, lines 4-5. The "oligomers" of Boisseau et al. are reacted with the reference's crosslinking agents to become "one or more constitutional units of" the crosslinked larger polymer molecule that results from the crosslinking reaction of Boisseau et al. and thus the "oligomers" of Boisseau et al. literally meet the appellant's cited definition of "monomer" not to mention the appellant's specification includes



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oligomers as falling within the scope of the claimed invention at page 10, lines 4-5. Thus, the examiner's reference to "macromonomers" and his assertion that the oligomers of Boisseau et al. fall within the scope of the instant claims are clearly not contrary to the appellant's specification and the IUPAC definitions of these materials.

Furthermore, sections [0044]-[0046] et seq. of the instant specification include polymeric substances among the instantly claimed "monomeric materials" and "non-polymeric coating compositions" as being within the scope of the instantly claimed invention, since this compound is based on a "polyester". In fact, many of the disclosed "monomeric material having a plurality of active hydrogen groups" are also oligomeric or polymeric. Therefore, the appellant's disclosure clearly includes Boisseau et al.'s oligomers within the scope of the instantly claimed invention.

Claim 16 is open to the additional things of the prior art due to the initial use of "comprising".

The appellant's arguments regarding the reference disclosing oligomeric or polymeric, not monomeric, compounds having a plurality of active hydrogen groups is addressed above, particularly regarding the definition of "macromonomer", which is not rebutted by the appellant.

"Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers", page 82 defines "macromonomer" as "a polymer that contains reactive groups". It is thus clear that the prior art macromonomer falls within the scope of this definition and therefore falls within the scope of the instantly claimed "monomer" due to the root of the above defined "macromonomer".

There is no definition of monomer in the instant specification or in the prior art recognized usage of the term monomer that requires a monomer to be a « simple molecule », whatever a « simple molecule" is. See the definition of « macromonomer », the instant claims 4-7, of which the monomeric materials appear to encompass polymers or oligomers based on the recited reaction products, and section [0020] of the appellant's specification, noting the oligomers therein.

The appellant's arguments have been fully considered but are not persuasive for the above reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08.

For the above stated reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08, this rejection should be affirmed.

B. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. Application Publication No. 2002/0155278 Boisseau et al. in view of US Pat. No. 5872195 Green et al. and US Pat. No. 5756213 Ohrbom et al. with "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers", page 82 being cited as evidence.

Boisseau et al. discloses coating compositions and coating methods falling within the scope of the instant claims at the abstract; sections [0019], [0022], [0026] which falls within the

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scope of the instant claims 12 and 14, [0038]-[0043] which falls within the scope of the instant claims 9-10, [0048] of which the oligomeric film formers fall within the scope of the instant claims as they are not polymeric since they are oligomeric and they can be further polymerized and are thus monomers, [0050] which falls within the scope of the instant claim 2, [0098], [0099], [0105] which falls within the scope of the instant claim 15; and the remainder of the document.

Boisseau et al. does not disclose the instantly claimed monomers of claims 4-6.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed monomers of claims 4-6 as the film forming agent of Boisseau et al. because Boisseau et al. encompasses such film formers at sections [0048] through [0098] and Ohrbom, columns 2 through 8, which falls within the scope of the instant claims 5-6, and the ordinary skilled artisan would have expected the benefits of these film formers as taught by Green (abstract) of which compound c falls within the scope of the instant claim 4, combined with the benefits of the urea compounds of Boisseau et al..

The appellant argues that the patentees require the film formers to be oligomeric or polymeric, not monomeric. The instant claims and the enabling specification do not exclude oligomers, which are not polymers as is clear from the appellant's arguments relating to the prior 112 rejection, by recitation of "non-polymeric". The oligomers of the references react further to give higher molecular weight polymer when cured and are therefore necessarily "macromonomers" prior to curing as the term is well understood in the art and are thus "monomeric". The appellant continues to argue this issue adding that the prior art does not use the term "macromonomer" as this is the examiner's interpretation of "it appears nowhere in

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Boisseau..." No matter what Boisseau calls the item in question, it remains a macromonomer by its function/action in the disclosed compositions. A rose is a rose by any other name. This is clearly within the scope of "monomers". Claims are to be interpreted in their broadest reasonable scope as is axiomatic. That a macromonomer is a monomer is maintained for reasons of record and is not "an unreasonable contortion of "monomer" as used in the present application, Boisseau, and the art" because none excludes macromonomers from them and "macromonomers" are "monomers" as can easily be seen by the common occurrence of "monomer" in both terms. The appellant's arguments in this regard are not persuasive for these reasons and the other reasons of record for this issue.

The above arguments regarding the "oligomeric" active hydrogen containing compounds of Boisseau et al. falling within the scope of the instantly claimed "monomeric materials" and "non-polymeric" of the instant claims is again repeated and applied to the secondary references in view of the appellant's disclosure which explicitly includes "oligomers" and uses "polymers" in its examples.

Appellant's belief that the array of cited compounds of Ohrbom do not include lactone or hydroxyl carboxylic acid is not persuasive regarding claim 4 which does not require these compounds and ignores the relevant sections of the cited parts of the Ohrbom et al. patent that does have these compounds such as column 6, lines 47 et seq. and column 7, lines 31 et seq.

The appropriate rationale and motivation to combine the references is given above, particularly since Boisseau et al. broadly encompasses such compounds. There is no unexpected result for the components of claims 4-6. These compounds of Ohrbom and

Green will have the same functional groups as those of Boisseau et al. and are therefore expected to have the resistance to sag. No evidence to the contrary is seen.

Claim 16 is open to the additional things of the prior art due to the initial use of "comprising".

"Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers", page 82 defines "macromonomer" as "a polymer that contains reactive groups". It is thus clear that the prior art macromonomer falls within the scope of this definition and therefore falls within the scope of the instantly claimed "monomer" due to the root of the above defined "macromonomer".

The appellant's arguments have been fully considered but are not persuasive for the above reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08.

There is no showing of unexpected results stemming from the differences between the above cited prior art and the instant claims that is commensurate in scope with the instant claims and the cited prior art, particularly all of the parameters which materially affect composition properties that are not specified in the instant claims and the cited prior art.

For the above stated reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08, this rejection should be affirmed.

C. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. Application Publication No. 20020119253 Ohrbom et al. in combination with US Pat. Application Publication No. 2002/0155278 Boisseau et al..

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Ohrbom et al. discloses a thermosetting coating composition containing the instantly claimed monomeric material of the instant claims, including claims 4-6 and 17-19 at sections [0014]-[0016], [0019], [0021]-[0022], [0026]-[0028], and most particularly the formulae of section [0042]-[0043], which are the monomers of the instant claims, including new claims 17-19, and a crosslinker at sections [0044]-[0061], the optional oligomer at sections [0062]-[0079], the functionalities and reactions of these compounds necessarily giving thermosetting. The disclosure of Ohrbom et al. meets the instant claims 2-8, 13, and 15-19 except for the use of the instantly claimed crystalline reaction product of an amine and an isocyanate. See the remainder of the document.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed crystalline reaction product of an amine and an isocyanate in the coatings discussed above of Ohrbom et al. that otherwise fall within the scope of the instant claims because they are encompassed by the typical additives of section [0139] of Ohrbom et al. and they would have been expected to give the antisag properties described by Boisseau et al. due to the similarities between the components of Boisseau et al. and Ohrbom et al. such that the same bonds, including hydrogen, van der Waals, ionic, and covalent, that give the thickening that leads to the antisagging and other properties attributed to the crystalline reaction product of an amine and an isocyanate rheology control agent of Boisseau et al. would have been expected in the compositions of Ohrbom et al. also along with the accompanying rheology control. The crosslinkers of Ohrbom could react with these ureas for the same reason that they can react with the urea and carbamate functional components of Ohrbom et al. which meets the instant claim 3. It would have been obvious to one of ordinary skill in the art at the

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time of the instantly claimed invention to use the instantly claimed silicas of the instant claims 12 and 14 in the coatings of Ohrbom et al. because they are encompassed by section [0139], particularly the fillers of Ohrbom et al., the use of fumed silica is exemplified by Ohrbom et al. at section [0161], Table 6, and its use in the above discussed compositions would have been expected to give its typical properties to the above discussed coating compositions.

There is no showing of unexpected results stemming from the differences between Ohrbom et al. and the instant claims that is commensurate in scope with the instant claims and the cited prior art, particularly all of the parameters which materially affect composition properties that are not specified in the instant claims and the cited prior art.

#### **(10) Response to Argument**

##### Regarding the rejection of paragraph (9)A. above:

(The mark « is intended to be a quotation mark. The examiner's computer will not allow correction of this and subsequent marks.)

A similar rejection was affirmed by the Board of Appeals and Patent Interferences in their decision mailed 7/18/08. The issues remain substantially the same. The instant claims differ only in that they now recite optional polymeric or oligomeric material. This rejection differs only in that the examiner now cites "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" for its definition of "macromonomer", which is a well known term of art that has been referenced in the prosecution of this application since the office action mailed 8/28/06. In all of their responses to rejections citing "macromonomer", the appellant has not rebutted the meaning per se of "macromonomer" that has been used in the prosecution of this application nor even argued that the meaning attributed to "macromonomer"

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is incorrect. This is taken as clear evidence that the examiner's attributed meaning of the well known term of art "macromonomer" is correct. This rejection should be affirmed for the same reasons as were given in the Board's decision of 7/18/08 because the issues and the claims rejected in the instant rejection are substantially the same as those considered by the Board's decision of 7/18/08.

The appellant argues that "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" is not properly of record because the copy thereof is blurred and illegible. It is blurred and illegible. Therefore a clean copy thereof is attached to this examiner's answer along with a new PTO-892. Still the appellant's representative was able to respond to the first office action (of 9/29/08) citing "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" in their response of 12/22/08 without any request for a legible copy of "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" and the appellant's response of 12/22/08 affirmatively mentions "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" but makes no request for a legible copy of "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers". The supplying of the new copy of "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" should not be considered to be a new grounds of rejection because of the reasons stated in paragraph 8 above in this regard, particularly the statements regarding MPEP 1207.03 "III. SITUATIONS THAT ARE NOT CONSIDERED AS NEW GROUNDS OF REJECTION"



There is no new ground of rejection when the basic thrust of the rejection remains the same such that an appellant has been given a fair opportunity to react to the rejection. See *In re Kronig*, 539 F.2d 1300, 1302-03, 190 USPQ 425, 426-27 (CCPA 1976)."

The appellant's representative makes the assertion that because the cited prior art does not use the term "macromonomer", the polymers and oligomers therein stated to be "macromonomers" in the above rejections are not "macromonomers". If it acts like a macromonomer, it is a macromonomer and the oligomers and polymers stated to be macromonomers in the above rejections act as macromonomers and are therefore "macromonomers », which are clearly a class of "monomers" as stated in the above rejections. These moieties are particularly polymers that contain reactive groups, which are « macromonomers ». No probative evidence to the contrary is seen. Even the definitions of « monomer », "oligomer », and « polymer » supplied by the applicant do not rebut this definition of « macromonomer » or even address « macromonomer ».

The applicant argues that the instant claims recite "monomeric", "polymeric", and "oligomeric" and this mere recitation is somehow supposed to keep the recitation of "monomeric" from reading on "macromonomers », e.g. « oligomers » and « polymers ». The examiner notes page 10, lines 4-5 of the instant specification which states that the monomers may be oligomers, which is consistent with the well known term "macromonomer" in the art. It is noted that the appellant argued that the compounds of paragraph [0020] of their specification were their monomers in their response of 6/8/06. The applicant also argued claims 4-7. The examiner particularly notes that the reactions of the instant claims 4-7 include oligomers therein. Note that no limitations are given with regard to the claimed reactions of the instant claims 4-7 to

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exclude the oligomerizations from occurring. It is not even seen that the chemistries of claims 4-7 can be regulated so as to not give oligomeric or polymeric entities. Thus, section [0020], particularly the dimers, trimers, tetramers, and oligomers disclosed therein and the instant claims 4-7 clearly show that the appellant intends oligomers to fall within the scope of their monomeric materials. No probative evidence to the contrary exists. The appellant's specification does not define « monomer », « oligomer », and « polymer » to be mutually exclusive.

The appellant provides definitions of "monomer", "oligomer", and "polymer" and argues, in essence, that these cited definitions are mutually exclusive. To the contrary, the examiner notes that these definitions overlap in scope. The definitions of "monomer", "oligomer", and "polymer" are of overlapping scope. As the appellant argues, « monomer » means one unit. Similarly, polymer means many units. An oligomer has a few units but this few units is also more than one and therefore constitutes "many". « Oligomers » are therefore polymers. This is born out by the relative infrequency of usage of the term "oligomer" in the polymer arts in the examiner's approximately 20 years of experience in examining the polymer arts. Most references simply refer to polymers due to the rather vague nature of "oligomer", even where the small molecules can be referred to as « oligomers ». Furthermore, polymers and oligomers can be monomers per the definition of « macromonomers », which are polymers that contain reactive groups and thereby constitute the one unit. It is noted that the unit is not prohibited from being a macromolecule. A pertinent question is where is the bright line distinction between « monomer », « oligomer », and « polymer ». The examiner has never seen one because the terms overlap in scope, as is clear to the skilled artisan and is clear from the instant record. The appellant provides no evidence that rebuts this point.

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A definition of "monomer" referenced by the appellant reads « A molecule which can undergo polymerization thereby contributing constitutional units to the essential structure of a macromolecule. » The functional polymers and oligomers of the above cited art « can undergo polymerization thereby contributing constitutional units to the essential structure of a macromolecule. » as can the oligomers of the appellant's claims 4-7 and section [0020] of their specification. This is further born out by definition of « macromonomer » which also « can undergo polymerization thereby contributing constitutional units to the essential structure of a macromolecule. » Noting the common « macro » between « macromolecule », i.e. « polymer » cited by the appellant and « macromonomer », it is clear that monomers can be macromolecules, i.e. polymers and monomers per the « macro » and "monomer" portion of "macromonomer". It is further noted that the argued definitions of "oligomer » and « polymer » recite the term « relative » because "oligomer" is a relative term. One person's "oligomer" is another's "polymer" and both have many units, i.e. poly mers.

None of the caselaw cited by the appellant states that terms of overlapping scope are mutually exclusive, as is essentially argued by the appellant. This is not seen in the caselaw cited nor in the definitions of « monomer », « oligomer », and « polymer », as the terms are understood by the ordinary skilled artisan, particularly in view of the definition of "macromonomer" and the appellant's claims 4-7 encompassing oligomeric reaction products as well as the appellant's specification's stating that oligomers can be used as their monomeric materials at section [0020]. Furthermore, the appellant has not used their ability to be their own lexicographer to redefine "monomer", "oligomer", and "polymer" such that they are mutually exclusive terms. Therefore, their typical meanings apply and those meanings have been shown

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throughout the record to be overlapping, particularly in view of the definition of « macromonomer », the appellant's specification section [0020], noting the oligomers therein, and the appellant's claims 4-7, which clearly encompass polymers and oligomers.

It is also noted that the appellant's definitions of "monomer", "oligomer", and "polymer" do not consider the well known term of art "macromonomer".

The overlapping nature of « monomer » including « macromonomers », « oligomer », and « polymer » is such that it is not an improper conflation, contortion, or any other improper usage of the prior art terms "monomer", "oligomer", and "polymer" to say that the oligomers and polymers of the cited prior art also fall within the scope of the instantly claimed "monomeric materials". This is particularly true in view of the the appellant's monomeric materials including oligomers per the reaction products of the instant claims 4-7 giving oligomeric molecules and the oligomers of the appellant's specification, section [0020]. The definition of « macromonomers » also shows the oligomers and polymers of the cited prior art to fall within the scope of the instantly claimed "monomeric material".

The instant claims do not exclude the molecular weights of Boisseau argued by the appellant. It is noted that these compounds are "polymers that contain reactive groups » and « A molecule which can undergo polymerization thereby contributing constitutional units to the essential structure of a macromolecule. », e.g. the appellant's cited definition of « monomer ». These oligomers and polymers of the cited prior art therefore fall within the scope of the instantly claimed "monomeric materials" of the instant claims. The appellant's argument "There is no confusion or overlap between a monomer and an oligomer in Boisseau and the document is referring to different materials and acknowledges them as such." is not the relevant consideration

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here. The question is « Does the oligomer or polymer of Boisseau fall within the scope of the monomeric material of the instant claims ? » The answer to this is yes for the reasons stated above. The question is not does the polymer or oligomer of Boisseau fall within the scope of the monomer of Boisseau. Clearly, Boisseau makes a distinction between the compounds they call monomers and those they call oligomers or polymers. The instant specification does not make the same distinction. Furthermore, the function of Boisseau's oligomers and polymers is such that they are necessarily "macromonomer" which are "monomers", for the reasons stated above.

That polymer or oligomer can be macromonomers, which are monomers, is not unreasonable, non sequitur, or unexplainable. The explanation is the overlap between these terms, as shown above, in the definition of "macromonomer", in the appellant's claimed monomers which are oligomeric or polymeric, e.g. the reaction products of the instant claims 4-7 and section [0020] of the appellant's specification, and the lack of definition of « monomeric material » that excludes macromonomers or the oligomers and polymers of the cited prior art which are macromonomers therefrom.

One familiar with polymers understands the overlap between "monomer », « oligomer », and "polymer » illustrated above. Contrary to the appellant's arguments, the instant specification does not exclude oligomers and polymers of Boisseau from the instantly claimed monomeric materials. Again, it is noted that the reaction products of the instant claims 4-7 encompass polymers and oligomers as does section [0020] of the appellant's specification. There is no « contortion » of the term « macromonomer ». The examiner is not making the polymeric or oligomeric film-formers of Boisseau be something they are not. They are what they are. They also fall within the scope of monomeric materials of the instant claims per the appellant's claims

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4-7, which reaction products can be oligomers and polymers, appellant's specification section [0020], which states that the monomeric materials can be oligomers, the definition of "macromonomer" and the above discussed definition of "monomer", cited by the appellant, as encompassing polymers and oligomers. In re Buszard does not address the instant fact situation and does not specifically show the examiner's showing that the oligomers and polymers of Boisseau are macromonomers and therefore fall within the scope of the instantly claimed monomeric materials to be unreasonable. The examiner's usage of the terms, "monomer", "oligomer", "polymer", and "macromonomer" are consistent with the art recognized definitions thereof and the instant specification's lack of definitions thereof. Coupling the appellant's arguments regarding the « oligomers » of the instant specification, section [0020], falling within the scope of the instantly claimed monomeric materials and the instant claims' 4-7 reaction products encompassing polymers and oligomers makes the applicant's arguments regarding the recitation of « oligomer » in section [0020] of the instant specification incorrect on their face. Also, acids have COOH, of which the H is active. This rebuts the appellant's argument to the contrary regarding the dimer, trimer, tetramer, i.e. oligomeric fatty acids. The subsequent reactions thereof will have the disclosed active hydrogens also. Appellant's arguments that these compounds are not oligomers is incorrect on its face. The appellant has not shown probatively that the reaction products of their claims 4-7 are also not polymeric or oligomeric and the chemistry claimed appears to give oligomers and/or polymers, whatever the distinction is between oligomers and polymers, if any. The instant specification does not have the limitations on the oligomers of section [0020] thereof argued by the appellant. Again, note the reaction products of the instant claims 4-7, which appear to be polymeric, e.g. oligomeric. Claims 4-7

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relate clearly to the "monomeric material" and encompass reaction products that are polymeric, e.g. oligomeric because they are smaller than the final cured macromolecule. The proper claim interpretation is therefore that the instantly claimed monomeric materials encompass macromonomers, e.g. polymers and oligomers.

None of the evidence cited by the appellant for the definition of "monomer", "oligomer", and "polymer" considers the art recognized term "macromonomer" and the corresponding overlap between monomers and oligomers and polymers inferred by the definition of «macromonomer». None of the evidence cited by the appellant considers the appellant's statements in their specification, section [0020] that oligomers are encompassed by the instantly claimed monomeric materials, particularly considering that the monomeric materials of the instant claims 4-7 encompass reaction products that are polymers, e.g. oligomers.

For the above stated reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08, the rejection of paragraph (9)A. above should be affirmed.

Regarding the rejection of paragraph (9)B. above:

A similar rejection was affirmed by the Board of Appeals and Patent Interferences in their decision mailed 7/18/08. The issues remain substantially the same. The instant claims differ only in that they now recite optional polymeric or oligomeric material. This rejection differs only in that the examiner now cites "Reactive Polymers Fundamentals and Applications A Concise Guide to Industrial Polymers" for its definition of "macromonomer", which is a well known term of art that has been referenced in the prosecution of this application since the office

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action mailed 8/28/06. In all of their responses to rejections citing "macromonomer", the appellant has not rebutted the meaning per se of "macromonomer" that has been used in the prosecution of this application nor even argued that the meaning attributed to "macromonomer" is incorrect. This is taken as clear evidence that the examiner's attributed meaning of the well known term of art "macromonomer" is correct. This rejection should be affirmed for the same reasons as were given in the Board's decision of 7/18/08 because the issues and the claims rejected in the instant rejection are substantially the same as those considered by the Board's decision of 7/18/08.

The examiner's response in paragraph (10)A. above is repeated herein.

The arguments regarding oligomers and polymers of the cited prior art falling within the scope of the instantly claimed monomeric materials apply equally to the compounds of Green and Ohrbom stated as being the instantly claimed monomeric materials in the rejection of paragraph (9)B. above for the same reasons that the oligomers and polymers of Boisseau fall within the scope of the instantly claimed monomeric materials.

The rejection of paragraph (9)B. above does not require replacing the polymers and oligomers of the cited prior art with monomeric material because these polymers and oligomers of the cited prior art are also monomeric material, for the reasons stated above and therefore do not need to be replaced with anything. This argument does not address the clearly stated rejection.

It is not understood what is meant by "These documents do not appreciate the use of the monomeric material as found in the present claims and, in fact, the Boisseau polymers or oligomers would actually lead a skilled artisan away from using a monomeric material.",



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particularly in view of the appellant's specification teaching that oligomers may be used as their monomeric material and the fact that the reaction products of the instant claims 4-7 encompass polymers, e.g. oligomers, as their monomeric materials. Why the prior art oligomers and polymers are also monomeric materials is discussed adequately above. These discussions above rebut the appellant's arguments regarding the rejection of paragraph (9)B. above. Appellant's arguments that Green requires "at least one carbamate" followed by the arguments regarding differences between one and more than one carbamate group ignores the clear meaning of "at least" of Green, which clearly encompasses more than one carbamate. The skilled artisan clearly appreciates the differences between mono- and polyfunctional compounds and their curing reactions at the time of this application. No unexpected results are seen for this distinction. The appellant then argues that (c) of Green can have just one carbamate group. This is again inconsistent with "at least". The appellant's arguments are not commensurate in scope with Green's clear disclosure.

For the above stated reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08, the rejection of paragraph (9)B. above should be affirmed.

Regarding the rejection of paragraph (9)C. above:

Shortly after the examiner started working at the PTO, representatives of the assignee in the instant application brought the examiner two jars of thixotropes. One was hectorite clay in water and the other was hectorite clay in polypropylene glycol of Mw about 10000. This was

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over 15 years ago. Afterwards, the examiner has many times examined applications relating to thixotropes or rheology control agents or thickeners, many of which were the applications of the instant assignee and its representatives. As such, the examiner knows thixotropes, rheology control agents, thickeners, or whatever else they are called to be the typical additives of section [0139] of Ohrbom et al., particularly "other materials of kind that the art normally includes in such coatings". This is evidenced by the art of record, particularly Boisseau et al., sections [0009], [0011], [0012], [0013], and the totality of the Boisseau et al. reference, particularly those sections dealing with the rheology control agent used therein.

The appellant's argument that Ohrbom expressly does not contain a crystalline solid, effectively teaching away from appellant's composition is incorrect on its face. There is no teaching away from using crystalline solids in Ohrbom. If the absence of a material was an effective teaching away, there would be few possible obviousness rejections in the composition art. The appellant's position is not consistent with the KSR decision they argue. It requires no contravening of the teachings of Ohrbom to use crystalline solids in Ohrbom's compositions. It is noted that Ohrbom discloses the use of insoluble pigments, fillers, and silica at sections [0139] and [0147], most of which are crystalline. It is not seen that other components specified by Ohrbom are not inherently crystalline. Ohrbom does require their component (a) to be not a crystalline solid at room temperature (abstract). This is not an overall exclusion of all crystalline solids. The above rejection of paragraph (9)C. is not merely the fact that the features of the appellant's claims are simply known in the art. There is a clearly stated rationale to combine the references of the rejection of paragraph (9)C. above and the clear expectation of success stated above. The appellant's arguments merely ignore them. Note particularly "It would have been obvious to one

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of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed crystalline reaction product of an amine and an isocyanate in the coatings discussed above of Ohrbom et al. that otherwise fall within the scope of the instant claims because they are encompassed by the typical additives of section [0139] of Ohrbom et al. and they would have been expected to give the antisag properties described by Boisseau et al. due to the similarities between the components of Boisseau et al. and Ohrbom et al. such that the same bonds, including hydrogen, van der Waals, ionic, and covalent, that give the thickening that leads to the antisagging and other properties attributed to the crystalline reaction product of an amine and an isocyanate rheology control agent of Boisseau et al. would have been expected in the compositions of Ohrbom et al. also along with the accompanying rheology control. [The underlined portion being the reason to combine the references and the reason to expect success of the combination.] The crosslinkers of Ohrbom could react with these ureas for the same reason that they can react with the urea and carbamate functional components of Ohrbom et al. which meets the instant claim 3. It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed silicas of the instant claims 12 and 14 in the coatings of Ohrbom et al. because they are encompassed by section [0139], particularly the fillers of Ohrbom et al., the use of fumed silica is exemplified by Ohrbom et al. at section [0161], Table 6, and its use in the above discussed compositions would have been expected to give its typical properties to the above discussed coating compositions.

There is no showing of unexpected results stemming from the differences between Ohrbom et al. and the instant claims that is commensurate in scope with the instant claims and the cited

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prior art, particularly all of the parameters which materially affect composition properties that are not specified in the instant claims and the cited prior art.”

The reason to combine the cited prior art, which is clearly stated in the rejection of paragraph (9)C above is apparent to the ordinary skilled artisan, which meets the requirement of KSR argued by the appellant.

Again, the appellant argues that Ohrbom expressly does not include crystalline material. No such express teaching is seen in Ohrbom. Again, the pigments, fillers, and silica are typically crystalline and their are other components of Ohrbom which may be inherently crystalline. The examiner has never held them in his hands and therefore does not know. The examiner does know that Ohrbom does not exclude all crystalline materials as argued by the appellant. The appellant has pointed to no express requirement of Ohrbom that crystalline material must not be used therein and no such disclosure in Ohrbom is seen. The basis for predictability is clearly stated above, particularly in the underlined section immediately above. There is no prohibition of crystalline materials being in the compositions of Ohrbom.

The appellant’s arguments that there is not motivation to use the instantly claimed urea (i.e. crystalline reaction product of an amine and an isocyanate) in the coating compositions

For the above stated reasons, the teachings of the cited prior art, and the reasons given in the decision of the Board of Appeals of 7/18/08, the rejection of paragraph (9)C. above should be affirmed.

#### **(11) Related Proceeding(s) Appendix**

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No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Art Unit 1796

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